

REMARKS

Applicants have cancelled claim 39 without prejudice, and have amended claim 24 to include the features of now cancelled claim 39.

Claims 24-38 and 40-44, of which claim 24 is independent in form, are presented for examination.

Information Disclosure Statement

Applicants are filing an Information Disclosure Statement concurrently with this Amendment, to provide copies of references originally cited in an Information Disclosure Statement filed on May 18, 2005. Applicants request that the Examiner provide confirmation that she has reviewed the references cited in this Information Disclosure Statement.

Claim Rejections – 35 U.S.C. § 102 and § 103

The Examiner has rejected claims 24-44 as anticipated by Read et al., “Low Temperature Performance of λ -MnO₂ in Lithium Primary Batteries,” *Electrochemical and Solid-State Letters*, Vol. 4, No. 10, pp. A162-165 (2001) (“Read”) under 35 U.S.C. § 102(a), and/or as obvious in view of Read under 35 U.S.C. § 103(a).¹

As amended, claims 24-38 and 40-44 recite a method of manufacturing an electrochemical cell. The method includes providing a positive electrode including a lambda-manganese oxide, and after providing the positive electrode, forming a cell including the positive electrode and a lithium negative electrode. The cell has a closed circuit voltage of about 4V and a specific discharge capacity at a nominal discharge rate of 1 mA/cm² to a 3V cutoff of greater than 130 mAh/g. But claims 24-38 and 40-44 are not anticipated by Read or obvious in view of Read, at least because Read fails to disclose or suggest a cell having a specific discharge capacity at a nominal discharge rate of 1 mA/cm² to a 3V cutoff of greater than 130 mAh/g.

¹ The rejection of claim 39 is now moot, as Applicants have cancelled claim 39 in this Amendment.

Read discloses a cell that includes a lambda-manganese dioxide cathode material made by acid digestion of a LiMn_2O_4 spinel. (See Read, page A162.) Read discharges the cell at a discharge rate of 1.0 mA/cm^2 , to a cutoff voltage of 2.0 V. (See *id.*) The resulting discharge curve (Figure 1 of Read) is provided below:

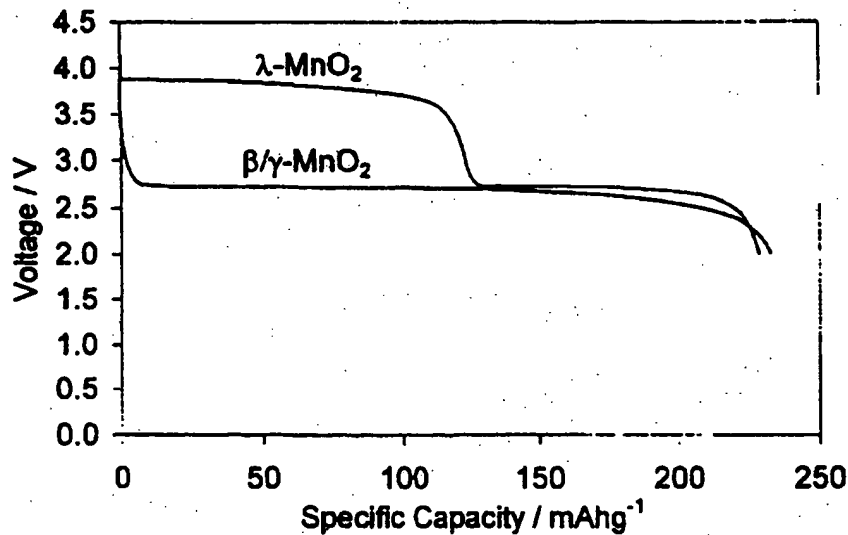


Figure 1. Specific capacity of $\lambda\text{-MnO}_2$ and $\beta/\gamma\text{-MnO}_2$ at 1.0 mA/cm^2 and 20°C .

As shown in Figure 1, Read's lambda-manganese dioxide cell does not have a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 130 mAh/g . Read fails to disclose such a cell, and therefore does not anticipate claims 24-38 and 40-44.

The Examiner has also asserted that a cell having a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 130 mAh/g is obvious in view of Read. More specifically, the Examiner has asserted that although Read discloses a specific discharge capacity of around 120 mAh/g , and does not disclose a specific discharge capacity of 130, 135, or 140 mAh/g or greater,

[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to . . . design the cell to have a specific discharge capacity greater than 140 mAh/g since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (See May 27, 2005 Office Action, pages 5-6.)

But Read fails to disclose or suggest how to form a cell with a specific discharge capacity at a nominal discharge rate of 1 mA/cm² to a 3V cutoff of greater than 130 mAh/g. Thus, Applicants submit that the Examiner has applied an “obvious to try” test in her 35 U.S.C. § 103(a) rejections. As the Federal Circuit has stated:

An “obvious-to-try” situation exists when a general disclosure may pique the scientist’s curiosity, such that further investigation might be done as a result of the disclosure, but the disclosure itself does not contain a sufficient teaching of how to obtain the desired result, or that the claimed result would be obtained if certain directions were pursued. (See In re Eli Lilly & Co., 14 USPQ2d 1741, 1743 (Fed. Cir. 1990).)

Here, while the disclosure of Read may pique the curiosity of a person of ordinary skill in the art to try to modify Read’s cell so that it has a specific discharge capacity at a nominal discharge rate of 1 mA/cm² to a 3V cutoff of greater than 130 mAh/g, Read does not contain a sufficient disclosure of how to obtain the desired modification. An “obvious to try” test, such as the test applied by the Examiner, is not a legitimate test of patentability. (See In re Fine, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988).) Thus, Read fails to suggest a cell covered by Applicants’ claims.²

Because Read fails to disclose or suggest a cell covered by claims 24-38 and 40-44, these claims are neither anticipated by Read, nor obvious in view of Read. Accordingly, for at least

² Applicants note that the Examiner has rejected claim 44 as anticipated by Read under 35 U.S.C. § 102(a) or, in the alternative, as obvious in view of Read under 35 U.S.C. § 103(a). Claim 44, which recites a cell having a closed circuit voltage of about 4V and a specific discharge capacity at a nominal discharge rate of 1 mA/cm² to a 3V cutoff of greater than 130 mAh/g, is patentable at least for the reasons provided above. Furthermore, Applicants do not concede that any statements made by the Examiner in rejecting claim 44 under 35 U.S.C. § 102(a) or 35 U.S.C. § 103(a) are correct.

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Filed : March 9, 2004
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the reasons discussed above, Applicants believe that claims 24-38 and 40-44 are in condition for allowance, which action is requested.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: August 26, 2005



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